

I CLAIM:

1                   1.     A method for conducting a transaction over a computer network  
2     between a consumer and a merchant involving a payment card issued by an issuer  
3     institution to the consumer, wherein the computer network includes at least three  
4     computers connected thereto, a consumer computer operated by or on behalf of the  
5     consumer, a merchant computer operated by or on behalf of the merchant, and a remote  
6     wallet server that provides functionality for the consumer computer to conduct  
7     transactions over the computer network, the method comprising:  
8                         receiving a request by the remote wallet server from the consumer  
9     computer for conducting a payment function with the merchant computer;  
10                        conducting a transaction by the remote wallet server with the  
11    merchant computer in response to the request by the consumer computer in a format  
12    substantially compliant with a chip card electronic commerce protocol or specification,  
13    regardless of whether or not the payment card of the consumer involved in the transaction  
14    is a chip card.

1                   2.     The method of claim 1, wherein the remote wallet server and the  
2     issuer institution have a shared secret data object, and the method further comprises the  
3     steps of:  
4                         generating a cryptogram by the remote wallet server based on the  
5     shared secret data object between the remote wallet server and the issuer institution; and  
6                         sending payment-related information and the cryptogram by the

7 remote wallet server to the merchant computer in response to the request by the consumer  
8 computer.

1                   3.       A remote wallet server for facilitating a transaction over a  
2 computer network between a consumer and a merchant, wherein the transaction involves  
3 a payment card issued by an issuer institution to the consumer, and wherein the computer  
4 network includes at least three computers connected thereto, a consumer computer  
5 operated by or on behalf of the consumer, a merchant computer operated by or on behalf  
6 of the merchant, and the remote wallet server; the remote wallet server comprising:  
7                               a microprocessor unit;  
8                               a memory unit coupled to the microprocessor unit;  
9                               means for conducting a transaction with the merchant computer in  
10 response to a request for such a transaction by the consumer computer in a format  
11 substantially compliant with a chip card electronic commerce protocol or specification,  
12 regardless of whether or not the payment card of the consumer involved in the transaction  
13 is a chip card.

1                   4.       The remote wallet server of claim 3, further comprising:  
2                               a storage unit having stored therein a secret data object that is  
3 shared with the issuer institution;  
4                               means for generating a cryptogram by the remote wallet server  
5 based on the secret data that is shared between the remote wallet server and the issuer  
6 institution; and

7 application code stored in the memory unit for sending payment-  
8 related information and the cryptogram to the merchant computer in response to the  
9 request by the consumer computer to conduct a transaction with the merchant computer.

1 5. The remote wallet server of claim 4, wherein the storage unit and  
2 the means for generating a cryptogram are contained in a tamper-resistant security  
3 module.

1 6. A method for conducting a transaction over a computer network  
2 between a consumer and a merchant involving a payment card issued by an issuer  
3 institution to the consumer, wherein the computer network includes at least three  
4 computers connected thereto, a consumer computer operated by or on behalf of the  
5 consumer, a merchant computer operated by or on behalf of the merchant, and a remote  
6 wallet server that provides functionality for the consumer computer to conduct  
7 transactions over the computer network, wherein the remote wallet server and the issuer  
8 institution have a shared secret data object, the method comprising:  
9 receiving a request by the remote wallet server from the consumer  
10 computer for conducting a payment function with the merchant computer;  
11 generating a cryptogram by the remote wallet server based on the  
12 shared secret data object between the remote wallet server and the issuer institution; and  
13 sending payment-related information and the cryptogram by the  
14 remote wallet server to the merchant computer in response to the request by the consumer  
15 computer.

1                   7.     The method of claim 6, wherein the payment-related information  
2     and the cryptogram are transmitted in a format substantially compliant with a chip card  
3     electronic commerce protocol or specification.

1                   8.     A remote wallet server for facilitating a transaction over a  
2     computer network between a consumer and a merchant involving a payment card issued  
3     by an issuer institution to the consumer, wherein the computer network includes at least  
4     three computers connected thereto, a consumer computer operated by or on behalf of the  
5     consumer, a merchant computer operated by or on behalf of the merchant, and the remote  
6     wallet server, comprising:

7                             a microprocessor unit;  
8                             a memory unit coupled to the microprocessor unit;  
9                             a storage unit having stored therein a secret data object that is  
10    shared with the issuer institution;

11                            means for generating a cryptogram by the remote wallet server  
12    based on the secret data that is shared between the remote wallet server and the issuer  
13    institution; and

14                            application code stored in the memory unit for sending payment-  
15    related information and the cryptogram to the merchant computer in response to a request  
16    by the consumer computer to conduct a payment function with the merchant computer.

1                   9.     The remote wallet server of claim 8, wherein the application code  
2     includes means for transmitting the payment-related information and the cryptogram in a

3     format substantially compliant with a chip card electronic commerce protocol or  
4     specification.

1                     10.     The remote wallet server of claim 9, wherein the storage unit and  
2     the means for generating a cryptogram are contained in a tamper-resistant security  
3     module